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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,237	08/13/2001	Stephen F. Gass	SDT 309	8812
27630	7590	01/25/2006	EXAMINER	
SD3, LLC			ALIE, GHASSEM	
25977 S.W. Canyon Creek Road, Suite G			ART UNIT	
WILSONVILLE, OR 97070			PAPER NUMBER	

3724

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/929,237	GASS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ghassem Alie	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 20-22 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) 4-9, 22 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11, 20, 21, 28, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07/24/05-10/08/05</u>   | 6) <input type="checkbox"/> Other: _____                                    |

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda (4,117,752) in view of Mowery, Jr (2,785,710), hereinafter Mowery, and in further view of Razzano (6,564,909). Regarding claim 20, Yoneda teaches a woodworking machine including a cutting tool 14 for cutting workpieces, a motor 10 configured to drive the cutting tool 14, and detection system configured to detect a dangerous condition between a person and the cutting tool 14. Yoneda also teaches a reaction system 20 controllable to stop the cutting tool 14 if the dangerous condition is detected by the detection system. See Figs. 1-5 and col. 2, lines 14-65 and col. 3, lines 14-26 in Yoneda. Yoneda does not teach a control system configured to determine the operability of the reaction system without having to operate the reaction system.

Yoneda teaches a brake mechanism 20 for the saw 14. Yoneda teaches that the brake mechanism is a clamp brake. Mowery teaches a brake mechanism that includes brake shoes 27. See Figs. 1-2 and col. 1, lines 70-73 and col. 2, lines 1-5 in Mowery. It would have been obvious to a person of ordinary skill in the art to replace Yoneda's brake mechanism with the brake mechanism, as taught by Mowery, since both the brake mechanism in Yoneda and the brake mechanism in Mowery are functionally equivalent and both stop the saw from rotating.

Razzano teaches a brake mechanism or a reaction system including brake pad 1 for stopping rotation of disk 2. Razzano also teaches a control system 32 configured to determine the operability of the reaction system without having to operate the reaction system. It should be noted that the wear of the brake pad 1 or the friction block 8 is monitored by the control system 32 at all times which also includes the time that the reaction system is not operating. See col. 1, lines 15-20 and col. 3, lines 1-50. It would have been obvious to a person of ordinary skill in the art to provide Yoneda's woodworking machine, as modified by Mowery, with the control system, as taught by Razzano in order to monitor the brake shoes and detect the wear of the brake shoes and prevent possible injuries.

3. Claims 1, 11, 21, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda in view of Mowery and in further view of Razzano and Doherty (6,235,195). Regarding claim 1, Yoneda teaches a woodworking machine including a cutting tool 14 for cutting workpieces, a motor 10 configured to drive the cutting tool 14, and a detection system configured to detect a dangerous condition between a person and the cutting tool 14. Yoneda also teaches a reaction system 20 controllable to stop the cutting tool 14 if the dangerous condition is detected by the detection system. See Figs. 1-5 and col. 2, lines 14-65 and col. 3, lines 14-26 in Yoneda. Yoneda does not teach a control system configured to determine the operability of the reaction system without having to operate the reaction system and to disable the motor if the reaction system is inoperable.

Yoneda teaches a brake mechanism 20 for the saw 14. Yoneda teaches that the brake mechanism is a clamp brake. Mowery teaches a brake mechanism that includes brake shoes 27. See Figs. 1-2 and col. 1, lines 70-73 and col. 2, lines 1-5 in Mowery. It would have been

obvious to a person of ordinary skill in the art to replace Yoneda's brake mechanism with the brake mechanism, as taught by Mowery, since both the brake mechanism in Yoneda and the brake mechanism in Mowery are functionally equivalent and both stop the saw from rotating.

Razzano teaches a brake mechanism or a reaction system including brake pad 1 for stopping rotation of disk 2. Razzano also teaches a control system 32 configured to determine the operability of the reaction system without having to operate the reaction system. It should be noted that the wear of the brake pad 1 or the friction block 8 is monitored by the control system 32 at all times which also includes the time that the reaction system is not operating. See col. 1, lines 15-20 and col. 3, lines 1-50. It would have been obvious to a person of ordinary skill in the art to provide Yoneda's woodworking machine, as modified by Mowery, with the control system, as taught by Razzano in order to monitor the brake shoes and detect the wear of the brake shoes and prevent possible injuries.

Yoneda, as modified above, teaches that the control system is configured to determine the operability of the reaction system without having to operate the reaction system. Yoneda, as modified by Razzano, teaches that if the reaction system is not operable a warning signal is generated. See lines 15-20 in Razzano. The warning signal is generated in the case that the brake shoes wear beyond the threshold. This is also taught in Kobayashi et al. (3,716,113). Yoneda, as modified above does not teach that the control system disables the motor if the reaction system is not operable. However, the use of control system to generate a warning signal in the case of emergency or to disable the motor instead of generating a warning signal in the case of emergency is well known in the art such as taught by Doherty. Doherty teaches a control system that generates a warning signal and disables the motor 80 in the case of

Art Unit: 3724

inoperability of the safety panel that covers a machine. See Figs. 1-3 and col. 3, lines 40-67 and col. 4, lines 1-67 in Doherty. It would have been obvious to a person of ordinary skill in the art to provide Yoneda's woodworking machine, as modified above, with the control system that generates warning signal and shuts down the motor in the case that the reaction system is not operable. Because, simultaneously shutting down the motor and generating a warning signal improve the reaction system and safety of the machine.

Regarding claim 11, Yoneda, as modified by above, teaches everything noted above including that the brake mechanism or the reaction system 20 is adapted to be electrically coupled to the control system, as modified by Razzano and Doherty, and where the control system is configured to disable the motor if the brake mechanism or the reaction system is not coupled to the control system.

Regarding claim 21, Yoneda, as modified above, teaches everything noted above including that the control system is adapted to at least check a portion of the brake system or the reaction system to verify that the portion of the brake system or the reaction system is operational. Yoneda's control system, as modified by above, tests the braking system as the whole, which also includes a portion of the braking system. Yoneda's control system, as modified by above, also is not running or actuating the motor if the brake system or the reaction system 20 is not operational.

Regarding claims 28 and 30, Yoneda as modified above, teaches everything noted above including a reaction system adapted to perform a specified action upon detection of a dangerous condition and a self-test system adapted to test operability of the brake system.

Art Unit: 3724

4. Claims 2, 3, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda in view of Mowery, Razzano, and Doherty, as applied to claims 1 and 30, and in further view of Balban (3,863,208). Regarding claims 2, 3, and 31, Yoneda, as modified above, teaches everything noted above except that the reaction system includes a capacitor adapted to store electrical charge and to trigger the disabling of the cutting tool upon discharge of the at least part of the electrical charge and where the control system is configured to determine the capacitance of the capacitor. Yoneda, as modified above, also fails to expressly teach that the reaction system includes a fusible member and where the control system is configured to determine the condition of the fusible member. Yoneda, as modified above, teaches that the motor is disabled if the brake or the reaction system does not properly function. Yoneda, as modified above, also teaches that the electric circuit provides the signal for disabling the motor. Yoneda does not expressly teach that electric circuit has a capacitor that discharges part of its charge for triggering the disabling of the cutting tool. However, Balban teaches a system to monitor an electric circuit including a sensing portion for circuit malfunctions and provide a warning system to the operator vehicle. Balban also teaches a control system that monitors the electric charge level in the capacitor of a reaction system. Balban also teaches that the capacitor triggers the firing circuit responsible for inflating a confinement adjacent the vehicle steering wheel. Balban also teaches that reaction system includes a fusible member F1-F4 and where the control system is configured to determine the condition of the fusible member. It should be noted that the control system monitors the whole electric circuit for malfunctioning. Therefore, the condition of fuse of the reaction system inherently is determined by the control system. See

Figs. 1-4 and col. 2, lines 21-47 and col.3, lines 42-58 in Balban. It would have been obvious to one skilled in the art at the time of the invention to equip Yoneda's reaction system, as modified above, with the capacitor and fuse, as taught by Balban, in order to disable the cutting tool with an electric circuit that can be monitored for malfunctions and consequently enhance the safety system of the cutting tool.

***Response to Amendment***

5. Applicant's arguments with respect to claims 1, 20, 28, and 30 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sickle (3,593,266), Luenser (3,931,727), Nymann (4,029,159), and Davis (5,206,625) teach a safety system having a reaction system and a control system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information



Art Unit: 3724

for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (too-free).

GA/ga

January 20, 2006



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